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Je-Ho Nam

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EXAMINER

NGUYEN, HAU H

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/537,214	<b>Applicant(s)</b> NAM ET AL.	
	<b>Examiner</b> HAU H. NGUYEN	<b>Art Unit</b> 2628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 31 March 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

The response filed on 3/31/2009 has been fully considered for preparing this Office Action.

#### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2, 6, 7, 9, 10, 14, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Charpentier (U.S. Patent App. Pub. No. 2003/0001864) in view of Rollins et al. (U.S. Patent No. 7,237,190, "Rolins", hereinafter).

As per claim 1, Charpentier teach an apparatus for adapting graphics contents (server-client network as shown in Fig. 2), comprising:

a graphics usage environment information managing means (*controller 120*) for collecting and managing graphics usage environment information related to consuming the graphics contents (*remote computing device 56*, page 3, par. 24-25); and

a graphics adapting means for adapting the graphics contents to the graphics usage environment information (i.e. *graphics customization mechanism 112 manipulating graphics content to produce graphics information in a second format that may vary according to the device type of the remote computing device 56*, page 4, par. 34),

wherein the graphics usage environment information includes user terminal characteristics information (*characteristic information of the remote computing device 56*, page 3, par. 25) and graphics presentation preference information (e.g. *to increase speed with which*

*graphics contents is displayed on the remote computing device, or reducing color information, etc.*, page 4, par. 34).

Charpentier fails to explicitly teach the contents of the graphics usage environment information is *schema-based*, the graphics usage environment information includes *a user's* graphics presentation preference information. However, this is what Rollins teaches. Rollins teaches a method for adapting graphics contents on a user terminal (see Fig. 3), , where the content of the graphics usage environment information is *schema-based*, the graphics usage environment information includes *a user's* graphics presentation preference information (col. 4, lines 11-39).

Therefore, it would have been obvious to one skilled in the art to utilize the method as taught by Rollins in combination with the method as taught by Charpentier in order to generate mode specific components that can interact to produce a user-specific, document specific, multi-modal interface (col. 3, lines 1-3).

As per claim 2, Charpentier fails to explicitly teach the user terminal characteristics information includes information related to encoding/decoding performance of the user terminal, and the graphics adapting means adapts the graphics contents based on the information related to encoding/decoding performance and transmits the adapted graphics contents to the user terminal. However, as cited above, Charpentier does suggest that all of the processing capabilities of the remote computing device are taken into consideration to generate the adapted graphics contents. Charpentier also teach reducing the transmission size of the generated graphics contents based on the information given by the remote computing device (pages 6-7, par. 55).

Therefore, it would have been obvious to one skilled in the art to modify the method of transmitting data with transmission size compatible with the remote device as taught by Charpentier such that the graphics contents is based on the encoding/decoding performance in order to provide the graphics contents that is best suited to the capability of the terminal device.

As per claim 6, Charpentier teaches graphics presentation preference information includes preference for geometrical characteristics of graphic objects of the graphics contents, and the graphics adapting means adapts the graphics contents by changing the geometric characteristics of the graphic objects of the graphics contents and transmits the adapted graphics contents to the user terminal (page 6, par. 47).

As per claim 7, Charpentier further teaches the graphics presentation preference information includes preference for material characteristics of the graphic objects of the graphics contents, and the graphics adapting means adapts the graphics contents by changing material characteristics of the graphic objects of the graphics contents and transmits the adapted graphics contents to the user terminal (i.e. changing patterns and gradient, Charpentier, page 5-6, par. 45).

Claim 9, which is similar in scope to claim 1, is thus rejected under the same rationale.

Claim 10, which is similar in scope to claim 2, is thus rejected under the same rationale.

Claim 14, which is similar in scope to claim 6, is thus rejected under the same rationale.

Claim 15, which is similar in scope to claim 7, is thus rejected under the same rationale.

3. Claims 3-5, 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Charpentier (U.S. Patent App. Pub. No. 2003/0001864) in view of Rollins et al. (U.S. Patent No.

7,237,190), and further in view of McTernan et al. (U.S. Patent App. Pub. No. 2001/0047422) (“McTernan”, hereinafter).

As per claim 3, as applied to claim 2 above, Charpentier-Rollins in combination teach all the limitations of claim 3, except that the encoding/decoding performance information includes information on the maximum number of vertices processed per second in the user terminal. However, McTernan teach a method for using benchmarking to account for variations in client capabilities in the distribution of a media presentation, wherein the computing capabilities of the client includes information on the maximum number of vertices processed per second in the user terminal (i.e. *the timing of graphics fill of a set of triangles is measured*, page 7, par. 80 and 82).

Therefore, it would have been obvious to one skilled in the art to utilize the method as taught by McTernan in combination with the method as taught by Charpentier-Rollins to determiner the capabilities of three-dimensional processing of the user terminal device in order to adapt the graphics content thereof.

As per claim 4, the combined Charpentier-Rollins fails to teach the information related to encoding/decoding performance includes information on the maximum number of pixels shown in a screen buffer of the user terminal per second. However, McTernan teaches *measuring image resolution in pixels of the client computational resource. A Client selects the model that will produce the best show possible based upon its specific hardware and bandwidth constraints* (page 7, par. 80). Thus, the maximum number of pixels corresponding to the image resolution that a client display resource is capable of displaying is known and sent to the server. As is well known in the art, screen buffer is used to store frame of image ready to be displayed according to a certain frame rate, it would have been obvious to one skilled in the art to utilize the method of

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measuring screen buffer capacity as taught by McTernan in combination with the method as taught by the combined Charpentier-Rollins so that graphics contents (such as image) can be formatted to fit the client's computational resource (in this case, to fit the screen buffer).

As per claim 5, although not explicitly taught by Charpentier and Rollins, McTernan teaches the system allows clients to retrieve the resources most suitable for their capabilities, including processing power, graphics production speed, and bandwidth based on a benchmarker routine running on the client (page 3, par. 41). Thus, the bandwidth (maximum rate) between the graphics processor and the graphics memory is tested and measured by the benchmarker to let the server know the client's computational capabilities.

Therefore, it would have been obvious to one skilled in the art to utilize the method of measuring the memory bandwidth as taught by McTernan in combination with the method as taught by Charpentier and Rollins in combination so that graphics contents can be formatted to fit the client's computational resource (in this case, to fit the client's processing power and production speed as cited above).

Claims 11-13, which are similar in scope to claims 3-5, are thus rejected under the same rationale.

4. Claims 8 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Charpentier (U.S. Patent App. Pub. No. 2003/0001864) in view of Rollins et al. (U.S. Patent No. 7,237,190), and further in view Horvitz et al. (U.S. Patent No. 6,232,974). ("Horvitz", hereinafter).

As per claim 8, as cited above, Charpentier teach the server is adapted to produce graphics contents suitable to the client's computing capabilities based on the client's given

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information. Charpentier-Rollins in combination fails to teach *the user's graphics presentation preference information includes user preference for the number of pictures of animation graphic objects shown for one second, and the graphics adapting means adapts the graphics contents by changing characteristics of the animation graphic objects of the graphics contents based on the user preference and transmits the adapted graphics contents to the user terminal*. However, Horvitz teaches a method for allocating computational resources of a computer or special purpose rendering device to maximize the perceived quality of multimedia content such as three-dimensional graphics, audio and video (col. 1, lines 8-15), wherein the graphics presentation preference information (i.e. *frame of animation to be adapted to the computational resource*) includes user preference for the number of pictures of objects shown for one second (*target frame rate*) (col. 9, lines 33-48).

Therefore, it would have been to one skilled in the art to utilize the method of allocating (limited) computing resources for producing animation as taught by Horvitz in combination with the method of adapting to the client computing resource as taught by Charpentier and Rollins so that when the server provide graphics data for animation to the client, it can convert the graphics data to a format suitable to the client's computing capabilities.

Claim 16, which is similar in scope to claim 8, is thus rejected under the same rationale.

### ***Response to Arguments***

Applicant's arguments with respect to claims 1-16 have been considered but are moot in view of the new ground(s) of rejection.



***Conclusion***

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hau H. Nguyen whose telephone number is: 571-272-7787. The examiner can normally be reached on MON-FRI from 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kee Tung can be reached on (571) 272-7794.

The fax number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

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applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Hau H Nguyen/

Primary Examiner, Art Unit 2628